Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of the effect of induction of anesthesia by Propofol or Thiopental sodium or Etomidate on hemodynamic changes during microlaryngeal surgery

Protocol summary

Summary

This study was aimed to analyze the effect of three drugs (Propofol, Etomidate and Thiopental sodium) in hemodynamic changes during suspension laryngoscopy as hypnotic drugs. This is a double-blinded study on 75 patients undergoing elective suspension laryngoscopy. Inclusion criteria are: ASA (American Society of Anesthesiologists) I and II classes; 17 - 80 years old patients undergoing elective suspension laryngoscopy without history of hypertension; no history of cerebrovascular accidents; no history of acute porphyria; no food allergy (specially to soya and egg). Exclusion criteria are: airway obstruction; laryngospasm; need to re-intubation after laryngoscope excitation; systolic blood pressure less than 90 mmHg at fifth minute and surgery duration more than 30 minutes. Patients were divided into three groups of Etomidate (received 0.3 mg/kg), Propofol (received 2.2 mg/kg) and Thiopental sodium (received 5 mg/kg) and hemodynamic parameters at 1, 3, 5, 10, 15 minutes after induction and 3, 5, 15, 30 minutes after recovery, surgeon's satisfaction of surgery, surgery duration and recovery time were measured. We understood that there is no difference between administration of Propofol, Etomidate and Thiopental sodium in terms of hemodynamic changes, surgeon's satisfaction of anesthesia and surgery duration.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015030421327N1**
Registration date: **2015-04-25, 1394/02/05**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2015-04-25, 1394/02/05

Registrant information

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Name of organization / entity

Isfahan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Isfahan University of Medical Sciences

Expected recruitment start date

2013-01-20, 1391/11/01

Expected recruitment end date

2014-03-16, 1392/12/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of induction of anesthesia by Propofol or Thiopental sodium or Etomidate on hemodynamic changes during microlaryngeal surgery

Public title

Comparison of the induction of anesthesia by Propofol or Thiopental sodium or Etomidate during microlaryngeal

surgery

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: age of 17-80; American Society of Anesthesiologist (ASA) I and II classes; no history of hypertension; no history of cerebrovascular accidents; no food allergy (especially to soya and egg); no history of acute porphyria Exclusion criteria: air way obstruction; laryngospasm; need to re-intubation after laryngoscope excitation; systolic blood pressure five minutes after induction of anesthesia less than 90 mmHg; surgery duration more than 30 minutes

Age

From **17 years** old to **80 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **75**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Isfahan University of Medical Sciences

Street address

Isfahan University of Medical Sciences, Hezar jarib St.

City

Isfahan

Postal code

Approval date

2013-01-09, 1391/10/20

Ethics committee reference number

391459

Health conditions studied

1

Description of health condition studied

General anesthasia

ICD-10 code

T88.5

ICD-10 code description

Other complications of anaesthesia

Primary outcomes

1

Description

Diastolic blood pressure

Timepoint

Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery

Method of measurement

mm-Hg, sphygmomanometer

2

Description

Systolic blood pressure

Timepoint

Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery

Method of measurement

mm-Hg, sphygmomanometer

3

Description

Heart rate

Timepoint

Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery

Method of measurement

Electrocardiogram monitor

4

Description

O2 saturation

Timepoint

Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery

Method of measurement

Pulseoxymeter

5

Description

Surgeon's satisfaction of surgery

Timepoint

After the surgery

Method of measurement

Questionnaire

6

Description
Time of surgery
Timepoint
Operation's time duration
Method of measurement
Timer

7

Description
Time of recovery hospitalization
Timepoint
Recovery duration
Method of measurement
Timer

8

Description
Mean arterial pressure
Timepoint
Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery
Method of measurement
mm-Hg, sphygmomanometer

Secondary outcomes

1

Description
Hypotension
Timepoint
Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery
Method of measurement
mm-Hg, sphygmomanometer

2

Description
Tachycardia
Timepoint
Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery
Method of measurement
Electrocardiogram monitor

3

Description
Hypertension
Timepoint
Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery
Method of measurement
mm-Hg, sphygmomanometer

4

Description
Bradycardia
Timepoint
Before and during intervention and after recovery time. 1, 3, 5, 10, 15 min after drug injection and 3, 5, 15, 30 min after recovery
Method of measurement
Electrocardiogram monitor

Intervention groups

1

Description
Propofol, 2.2 mg/kg within 30 seconds; IV.
Category
Treatment - Drugs

2

Description
Thiopental sodium, 5 mg/kg within 30 seconds; IV.
Category
Treatment - Drugs

3

Description
Etomidate, 0.3 mg/kg within 30 seconds; IV.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Alzahra Hospital
Full name of responsible person
Dr Mehrdad Masoudifar
Street address
Alzahra Hospital, Soffe Blv, Isfahan, Iran
City
Isfahan

2

Recruitment center
Name of recruitment center
Ayatollah Kashani Hospital
Full name of responsible person
Dr Mehrdad Masoudifar
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Ayatollah Kashani Hospital, Ayatollah Kashani St.
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Isfahan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Isfahan University of Medical Sciences
Full name of responsible person
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Street address
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City
Isfahan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Isfahan University of Medical Sciences
Proportion provided by this source
100
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

Contact
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty